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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,242	07/31/2000	Benjamin D. Pless	473912000100	3876

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EXAMINER

JOHNSON III, HENRY M

ART UNIT PAPER NUMBER

3739

DATE MAILED: 10/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/629,242

Applicant(s)

PLESS, BENJAMIN D. 

Examiner

Henry M Johnson, III

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-22, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-22 and 24-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Prior Rejections or Objections***

The following comments pertain to the rejections in the most recent Office Action, Paper No. 6, mailed on January 31, 2002. The rejections of claims 22 and 25 are affirmed and new rejections are added.

### ***Affirmed Rejections***

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,800,478 to Chen et al. Chen et al discloses a flexible probe that is generally linear with light emitting diodes along the axis (Fig. 1). Since the LED's are the only light emitting devices on the probe, they inherently emit substantially all the light from the probe (device).

### ***New Rejections***

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-4 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,143,019 to Motamedi et al in view of U.S. Patent 5,800,478 to Chen et al. Motamedi et al discloses a device and method for treating cardiac tissue using photodynamic therapy (Col. 6, lines 3-4). The fiber optic tip is applied to the heart through the endocardium (Col. 3, line 4). It is inherent that the light activated substances must be introduced into the tissue in some manner. Whether the photosensitizer is introduced locally or systemically would have been obvious to the skilled artisan. Motamedi et al does not disclose a specific pattern for the treatment probe. Chen et al teaches a flexible probe for light therapy with LED's mounted thereon. The probe may be linear or configured to a specific pattern (Col. 17, lines 49-50) due to the flexible substrate and manner of mounting the LED's. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the flexible light probe as taught by Chen et al in the invention of Motamedi et al to activate the photosensitizer to effect an interruption of the electrical "circuit" that causes cardiac arrhythmias.

Claims 5-10 and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,143,019 to Motamedi et al in view of U.S. Patent 5,800,478 to Chen et al as applied to claims 1-4 and 11-14 above, and further in view of U.S. Patent 6,164,283 to Lesh. Neither Motamedi et al nor Chen teach specific ablation patterns for specific cardiac conditions or methods. Lesh teaches methods to electrically isolate specific areas of the heart using ablative means to treat arrhythmia. Lesh teaches that focal arrhythmia often originate from a tissue region along the pulmonary veins of the left atrium, and even more particularly in the superior pulmonary veins. The method of treating involves forming a circumferential conduction block, using an internal catheter with ablation means, which is located either (a) along a circumferential path of tissue in a pulmonary vein wall which circumscribes the pulmonary vein lumen and transects the electrical conductivity of the pulmonary vein relative to its longitudinal axis, or (b) along a circumferential path of tissue in a left posterior atrial wall which surrounds a pulmonary vein ostium and electrically isolates the pulmonary vein and the ostium from a substantial portion of the left posterior atrial wall including the other of the vein ostia. Lesh further teaches an external procedure wherein a circumferential conduction block of one or more pulmonary veins may be performed in an epicardial ablation procedure, wherein an ablation element is either placed around the target pulmonary

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vein or is translated circumferentially around it while being energized to ablate the adjacent tissue in an "outside-in" approach. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the photodynamic techniques of Motamedi et al as an equivalent alternative to traditional ablative methods to treat cardiac arrhythmias in the patterns and areas as taught by Lesh.

Claim 24 is are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,800,478 to Chen et al in view of U.S. Patent 5,957,960 to Chen et al. Chen '478 is discussed above. Chen '960 teaches lenses within the LED light sources (Fig. 7). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the lenses as taught by Chen '960 in the invention of Chen '478 to achieve the desired light pattern.

#### **Conclusion**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M Johnson, III whose telephone number is (703) 305-0910. The examiner can normally be reached on Monday through Friday from 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C Dvorak can be reached on (703) 308-0994. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Henry M. Johnson, III  
Examiner  
Art Unit 3739

Hmj  
October 10, 2002

  
Lee Cohen  
Primary Examiner